Project Management Fundamentals

October 2014

Agenda

- Introduction
- Project Management Fundamentals
  - What is Project Management?
  - Phases of a project Lifecycle
  - Common project management methodologies
  - Breaking projects down into low-level tasks
  - Sample project plan
  - Status reports (RAG)
  - Common mistakes
  - What makes a good project manager
- Questions

Introduction and Background

Project Management Fundamentals

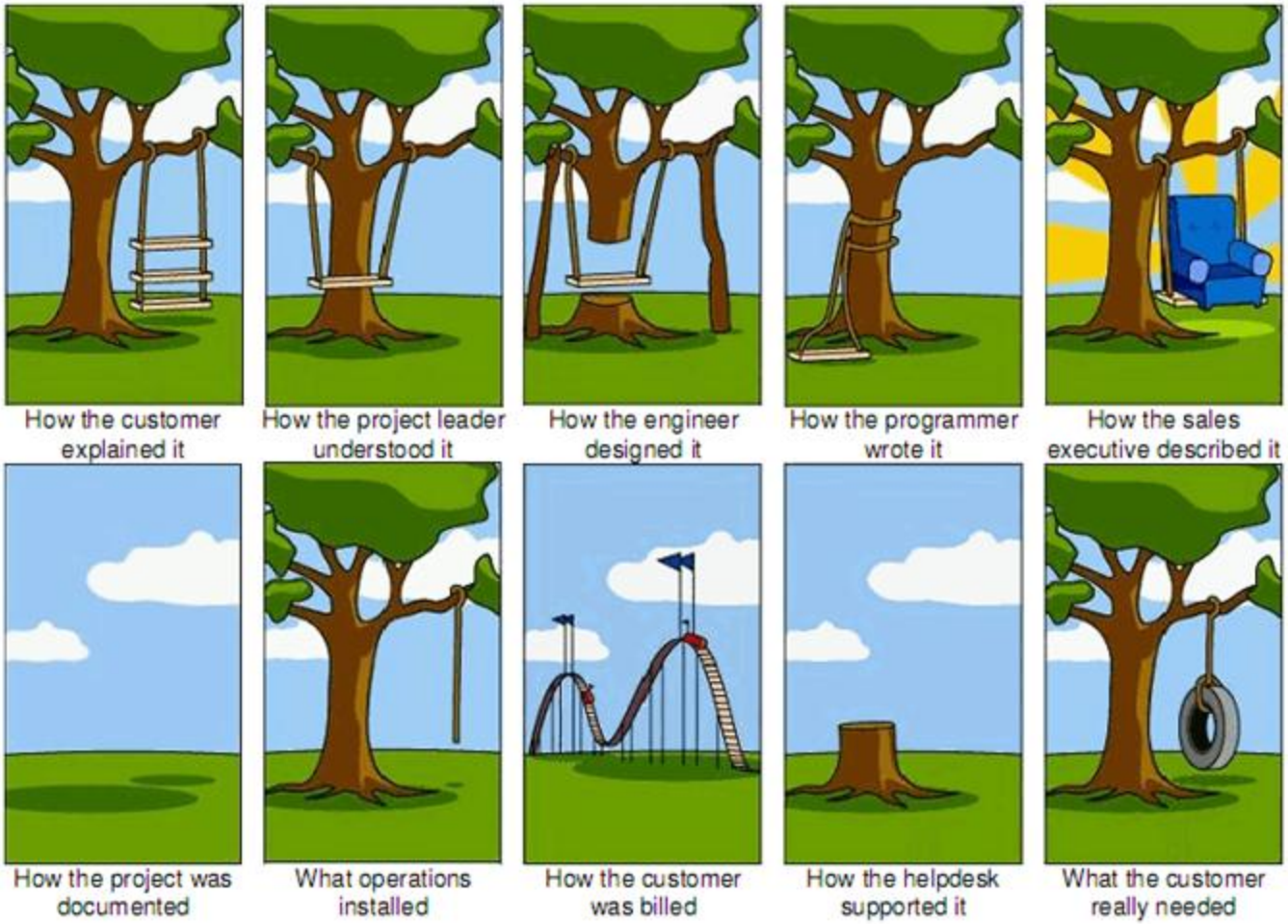
What is Project Management?

The Project Manager Role

The **Project Manager** responsibilities:

- Project delivers the agreed products to the required quality
- Agreed costs are not exceeded
- The required timelines are met
- Necessary resources are made available
- Day to day running of the project team (developers, business analysts, testers, technical specialists)
- Communicating regularly with the project team, other IT teams and with senior management (producing status reports, reporting risks and issues, arranging meetings)

Importance of Requirements Gathering



Importance of Requirements Gathering

As obvious as it is challenging…

- **Communication, communication, communication** – Phone, videoconference, email or everyone in the one room to brainstorm. Latter is best, however not always possible given Geographical complexities. (Utilise technology)
- **End product or goal** – does everyone have the same view on this? Is everyone working towards the same thing?
- **Never assume**– always ask for clarification. Worst case, everyone is already aware. Best case, you pick up on a huge requirements gap.
- **Write it down** – everything that is discussed or stated as a requirement needs documented and signed off. **Vital**

Sounds simplistic, but a lot of the time, they are widely ignored. A number of projects deliver a product or service that is far removed from what the customer originally asked for.

Tools for Requirements Gathering

- Project charter:
  - Documents high level requirements – project is not formally recognised until a formal charter has been agreed and signed off on.
  - Prevents any disputes on scope later on in the project
- Stakeholder identification:
  - Common cause for scope changes is stakeholders not being included in planning "*I wasn't aware you were doing this – I need something different altogether."*
  - If you are unsure if your project may affect someone – **tell them regardless**
- Stakeholder interviews:
  - What do they want? Why? By when?

Requirements analysis:

- User stories:
  - Captures the who what and why or a given requirement
  - Encourages team involvement and buy in
  - Are the requirements clear & unambiguous?

All requirements should be documented, actionable, measurable, testable & aligned to the business need

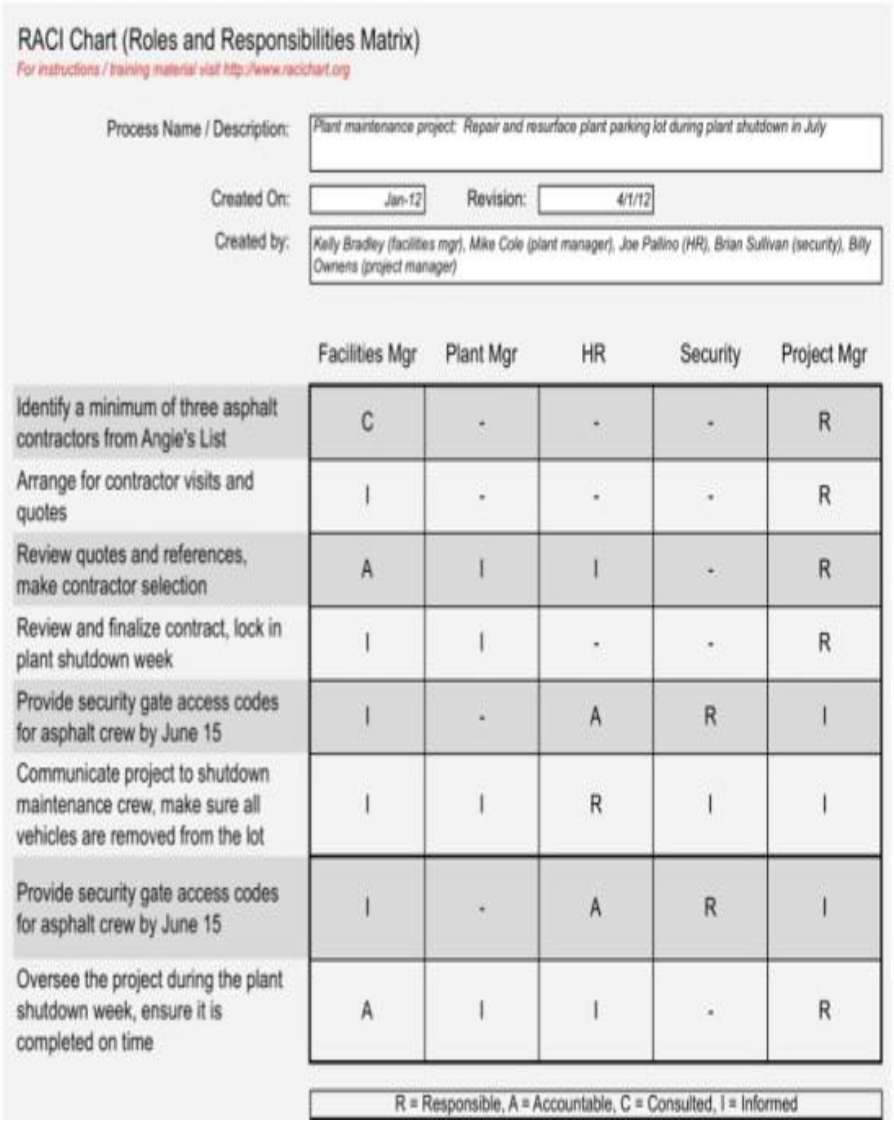
Requirements analysis

Format

- **Responsible**: the “Doer” *there can be only one
- **Accountable**: “buck stops with you.”
- **Consult**: “Kept in the loop
- **Informed**: “Kept in the picture.”

Why RACI?

- No ambiguity
- Efficient: no duplication of effort & resources allocated effectively
- Useful in terms of conflict: people can be held to account and monitored appropriately.
- Encourage the project team to own their role – fully adopt it.



RACI Chart (Roles and Responsibilities Matrix)

For instructions / training material visit http://www.raci.org

Process Name / Description: Plant maintenance project: Repair and resurface plant parking lot during plant shutdown in July

Created On: Jan-12 Revision: 4/1/12

Created by: Kelly Bradley (facilities mgr), Mike Cole (plant manager), Joe Pallino (HR), Brian Sullivan (security), Billy Owners (project manager)

	Facilities Mgr	Plant Mgr	HR	Security	Project Mgr
Identify a minimum of three asphalt contractors from Angie's List	C	-	-	-	R
Arrange for contractor visits and quotes	I	-	-	-	R
Review quotes and references, make contractor selection	A	I	I	-	R
Review and finalize contract, lock in plant shutdown week	I	I	-	-	R
Provide security gate access codes for asphalt crew by June 15	I	-	A	R	I
Communicate project to shutdown maintenance crew, make sure all vehicles are removed from the lot	I	I	R	I	I
Provide security gate access codes for asphalt crew by June 15	I	-	A	R	I
Oversee the project during the plant shutdown week, ensure it is completed on time	A	I	I	-	R

R = Responsible, A = Accountable, C = Consulted, I = Informed

Project Management Methodologies

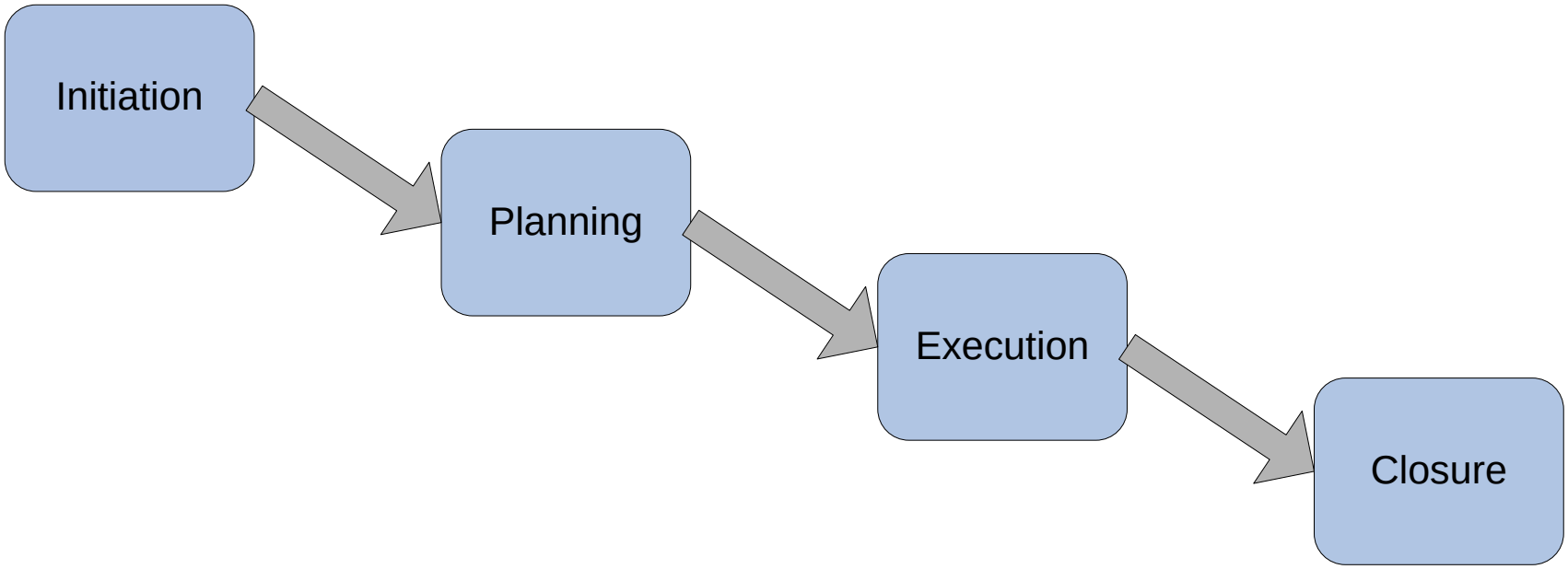
Two widely adopted approaches to project management

- Waterfall methodology – traditional, sequential progression through phases, generally one implementation at the end
- Agile methodology – iterative (multiple planning and execution phases with changes implemented each time)

Project Management Methodologies

Waterfall Project Management Lifecycle

Four phases of a typical Waterfall Project Management methodology



Project Lifecycle Phases

Initiation Phase

Defines the overall objectives for the project and sets up the management structure

Outputs:

- Business case (*what the project will do* and *why*)
- Initial estimate of work involved i.e. cost and likely end date (*when*)
- Definition of the key stakeholders - the senior decision makers (*who*)

Project Lifecycle Phases

Planning Phase

Defines the detailed scope and requirements, the resources and any dependencies

Outputs:

- Business requirements (e.g. GUI functionality, reports, projected volumes, performance)
- IT requirements (e.g. security needs, hardware, software/tools, testing environments)
- Risk and issue log
- Agree project communication plan
- Agree project team makeup
- Initial project plan (critical path, planned end date)

Project Lifecycle Phases

Execution Phase

Implements the tested software along with any required documentation

Outputs:

- Detailed technical design
- Review risks and issues
- Coding and unit testing
- Track progress against project plan, produce status reports
- Test plan and testing (integration, stress, user, automated)
- Implementation plan
- Training manuals and system documentation
- “Go live”

Project Lifecycle Phases

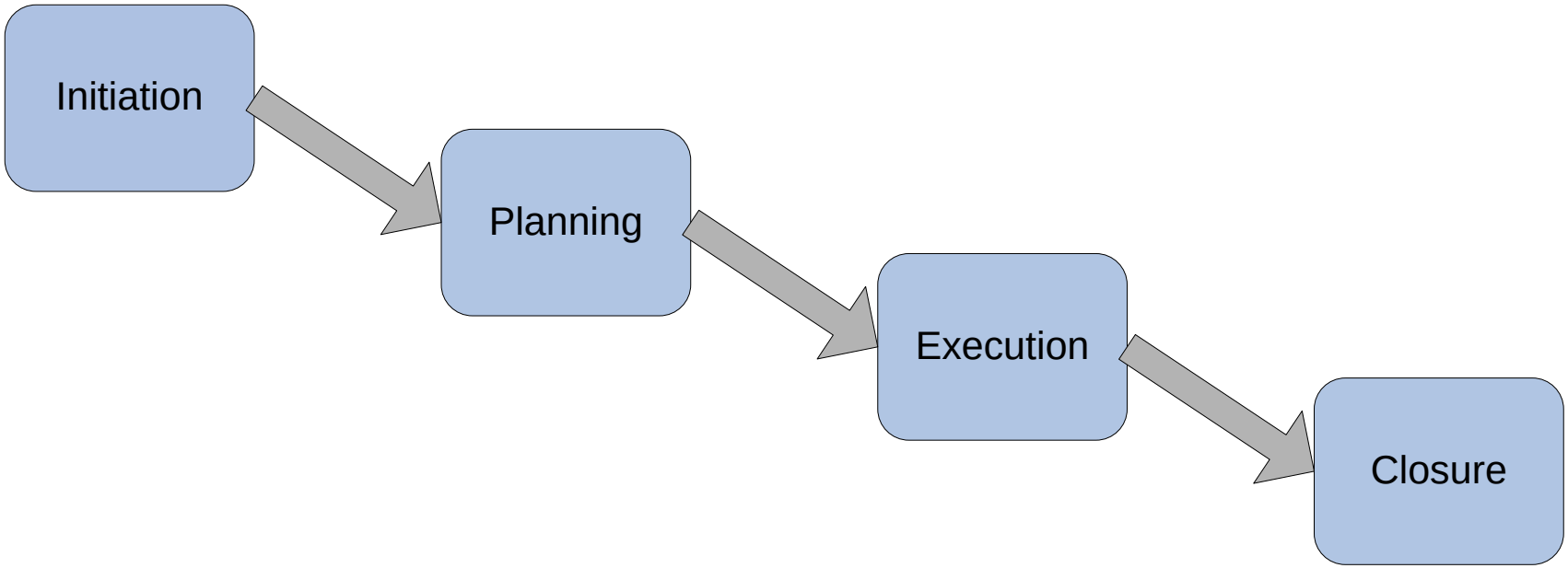
Closure Phase

Ensures an orderly end to the project

- Identify any outstanding tasks or actions
- Evaluate the project success e.g. compares the cost/time/deliverables against the business case
- Document any lessons learned
- Handover to Support team

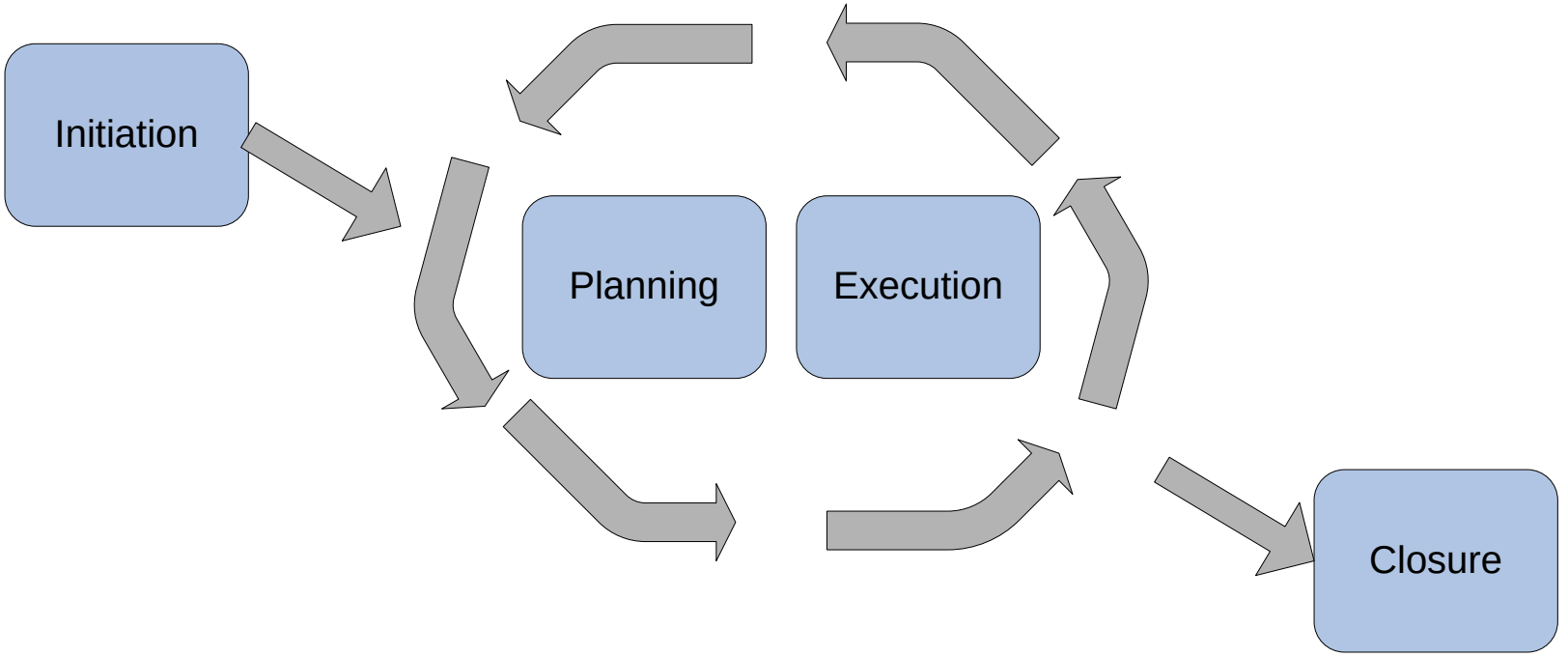
Waterfall Project Management Lifecycle

Four phases of a typical Waterfall Project Management methodology



Agile Project Management Lifecycle

Agile Project Management – multiple Planning and Execution phases



Breaking down Requirements into Low-Level Tasks

Results in smaller pieces of work which are easier to estimate.

For example: “Ensure only registered users can access the system via the GUI”

- New login screen
- Process to check username and password against the database and return “success” or “failure”
- New or amended database tables to hold the user details
- New screen for users to change their password (if needed)
- Process to force the users to change their password (if needed)
- Process to update the passwords in the database (is encryption needed?)
- Audit trail of successful and failed logins

Note the process of breaking the requirement into individual tasks has identified a few issues.

Sample Waterfall Project Plan

[Project Name] Workplan/Schedule

% Complete	Task Name	Duration	Planned Start	Actual Start	Planned Finish	Actual Finish	Resource Name	De
	II. Planning Phase							
100%	Planning workshop with team	1d	07/09/2012	07/09/2012	08/09/2012	08/09/2012	Sarah and Team	
100%	Agree project communication guidelines and responsibilities	1d	08/09/2012	08/09/2012	09/09/2012	09/09/2012	Sarah and Team	
100%	Define scope and requirements	3d	09/09/2012	09/09/2012	12/09/2012	12/09/2012	Sarah Lucas	
100%	Identify deliverables	2d	10/09/2012	10/09/2012	12/09/2012	12/09/2012	Simon Jackson	
100%	Break deliverables into tasks	2d	12/09/2012	13/09/2012	14/09/2012	15/09/2012	Simon Jackson	
100%	Estimate tasks	1d	13/09/2012	13/09/2012	14/09/2012	14/09/2012	Sarah Lucas	
100%	Assign tasks to team members	1d	14/09/2012	14/09/2012	15/09/2012	15/09/2012	Simon Jackson	
100%	Review plans and documents with team	0.5d	20/09/2012	21/09/2012	20/09/2012	21/09/2012	Sarah and Team	
100%	Circulate project documentation	0.5d	22/09/2012	22/09/2012	22/09/2012	23/09/2012	Sarah Lucas	
	Planning Phase Complete				**22/09/2012**	**23/09/2012**		
	III. Execution Phase							
100%	Setup source control	3d	23/09/2012	23/09/2012	26/09/2012	26/09/2012	Simon Jackson	
50%	Coding and Unit testing							
	New login screen	3d	27/09/2012		30/09/2012		Simon Jackson	
	password verification	4d	24/09/2012		28/09/2012		Anna Knight	
	database changes	4d	24/09/2012		28/09/2012		John Black	
	logging	2d	24/09/2012		26/09/2012		Emily James	
	Review test cases	2d	26/09/2012		28/09/2012		Sarah Lucas	
	Integration testing	5d	01/10/2012		06/10/2012		Team	
	Prepare implementation plan	2d	06/10/2012		08/10/2012		Simon Jackson	
	Implementation date	1d	15/10/2012		15/10/2012			
	Execution Phase Complete				**15/10/2012**			
	IV. Closure Phase							
	Handover session for Support	2d	16/10/2012		18/10/2012		Sarah and Team	

Status Reports (RAG)

Status reports will need to be produced, probably weekly.

- Summarise progress to date and detail achievements in the past week
- Include any new or important Risks and Issues
- Show current status compared to the Project Plan
  - RED – Project is running “significantly” late and the end date is at risk
  - AMBER – Project has slipped a little and could be late if action is not taken
  - GREEN – Project is progressing as per the Plan and is on target

Sample Status Report

PRIORITY	Deliverable	ELECTRONIC	MANUAL	TARGET DATE	ISSUES	COMMENTS
Day 1	Create new Record	Live	Live	02-Oct-14	None	
	Amend new Record	Live	Live	02-Oct-14	None	
	Summary page	Live with issues	Live with issues	02-Oct-14	Jira 123 Page does not auto-refresh	Fix due in next release
1	Security for new users	Future	On target	20-Oct-14	None	
2	Enhanced summary page	Future	Delayed	20-Oct-14	Key resource not available	
3	Bulk amendment facility	Future	On target	25-Oct-14	None	

Common Project Management Mistakes

- Taking shortcuts in planning.
  Projects happen in two ways: a) planned and executed or b) executed, stopped, planned and then executed

- Not having a process in place to handle changing requirements or “scope creep”.
  Change is inevitable so be ready for it.

- Under-estimating testing.
  Just because your component is bug-free doesn’t mean everyone else’s is too.

- An incomplete Project Plan.
  It is easy to forget about tasks like “set up source control”, “merge code”, “get licenses for new tools”, “help users to test” – and suddenly your project is LATE.

What makes a good Project Manager?

- Being well-organised but also flexible
  - You need to keep track of multiple tasks even when requirements and priorities change
- Ability to think logically and solve problems
  - You will need to find alternative ways to deliver the project despite “obstacles”
- Good communication skills across different audiences
  - You will be talking to users, developers, support, managers
  - You’ll be producing documents that need to have the appropriate level of detail
- Ability to think ahead
  - What’s coming next? What could go wrong?
  - What do I need to do ***now*** to make the next tasks successful?
- Willing to take accountability
  - Project manager owns the project and is accountable for any slippages to the plan (more stressful than one might think!)

Summary

- Definition of Project Management and the Project Manager role
- Four phases of a typical Waterfall project – Initiation, Planning, Execution and Closure
- Waterfall versus Agile
- Breaking project requirements down into low-level tasks
- Sample project plan
- Status reports (RAG)
- Common mistakes in managing projects
- What makes a good project manager?

References

- www.dilbert.com
- www.mindtools.com
- www.projectsmart.co.uk
- www.wikipedia.com

One final thought …

www.dilbert.com

Questions